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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,651	11/04/2003	Atsushi Watanabe	392.1835	5371

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EXAMINER

MONBLEAU, DAVIENNE N

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,651

Applicant(s)

WATANABE ET AL.

Examiner

Davienne Monbleau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-11 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

The amendment filed on 8/24/05 has been entered. Claims 1-3 and 5 have been amended. Claim 4 has been canceled. New Claim 11 has been added. Claims 1-3 and 5-11 are pending.

Drawings

The drawings were received on 8/24/05. These drawings are accepted.

Figure 1 is still objected to because the specification makes reference to certain elements with inconsistent references names. For example, page 8 refers to the left operating area as “operating area 1”, but this reference name is not in Figure 1. Similarly, page 8 refers to the right operating area as “working area 2”, which is also not in Figure 1. These are only examples of references names that are not in Figure 1 and may not be a complete list. Additionally, on page 8 Applicant then proceeds to refer to operating areas 1 and 2. Also, neither of these references names are depicted in Figure 1.

Additionally, Examiner suggests for consistency and clarity that operating areas be similarly named: operating area 1 and operating area 2 ... rather than operating area 1 and working area 2.

Correction for these inconsistencies throughout the specification is required.

Election/Restrictions

Newly submitted claim 11 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Claim 11 is a subcombination of Claims 1, 2, and 3. Inventions in this relationship are

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distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because it does not require that the automatic machine not stop working. The subcombination has separate utility such as controlling means in another type of work environment where the operator is not moving from various work areas and barrier detectors are not required.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 11 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6, and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Milbrath et al. (U.S. 6,166,371).

Regarding Claim 1, *Milbrath* discloses in Figure 7 a safety device for an automatic machine system including a plurality of operating areas (X, Z) in which an automatic machine (8) carries out operation on objects and preparing areas (outside of light curtain perimeter) adjacent to the respective operating areas (X, Z) and in which the objects to be fed into the

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respective operating areas (X, Z) by an operator are prepared, the safety device comprising first detecting means (1, 3) each disposed between each the operating area (X, Z) and the preparing area to detect entrance of an operator into each the operating area (X, Z), discriminating means (column 8 lines 1-15) for discriminating the operating area (X, Z) in which the automatic machine (8) is operating, means for outputting an informing signal for informing of the operating area where an operator is located (column 3 lines 39-45), in accordance with an operator's operation, means for controlling the automatic machine (8), in response to the informing signal, so that the automatic machine (8) does not enter the operating area (X, Z) where an operator is located, and means for stopping (column 8 lines 44-47) the automatic machine (8) when entrance of an operator into the operating area (X, Z) is detected by the first detecting means (1, 3) corresponding to the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating.

Regarding Claim 2, *Milbrath* discloses in Figure 7 a safety device for an automatic machine system including an area for installation (Y) of an automatic machine (8), a plurality of operating areas (X, Z) adjacent to the installation area (Y) and where the automatic machine (8) enters and carries out operation on objects, and preparing areas (outside of light curtain perimeter) adjacent to the respective operating areas (X, Z) and in which the objects to be fed into the respective operating areas (X, Z) by an operator are prepared, the safety device comprising first detecting means (1, 3) each disposed between each the operating area (X, Z) and the preparing area to detect entrance of an operator into each the operating area (X, Z), discriminating means (column 8 lines 1-15) for discriminating the operating area (X, Z) in which the automatic machine (8) is operating, means for stopping (column 8 lines 44-47) the automatic

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machine (8) when entrance of an operator into the operating area (X, Z) is detected by the first detecting means corresponding to the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating, means for outputting an informing signal for informing of the operating area where an operator is located (column 3 lines 39-45), in accordance with an operator's operation, means for controlling the automatic machine (8), in response to the informing signal, so that the automatic machine (8) does not enter the operating area (X, Z) where an operator is located, second detecting means (12) each disposed between the installation area (Y) and each the operating area (X, Z) to detect entrance of an operator into the installation area (Y), and means for stopping (column 8 lines 44-47) the automatic machine (8) when entrance of an operator into the installation area (Y) is detected by the second detecting means corresponding to the operating area (X, Z) other than the operating area (X, Z) which is discriminated by the discriminating means as the area in which the automatic machine (8) is operating.

Regarding Claim 3, *Milbrath* discloses in Figure 7 a safety device for an automatic machine system including an area for installation (Y) of an automatic machine (8), a plurality of operating areas (X, Z) adjacent to the installation area (Y) and where the automatic machine (8) enters and carries out operation on objects and preparing areas (outside the light curtain perimeter) adjacent to the respective operating areas (X, Z) and in which the objects to be fed into the respective operating areas (X, Z) by an operator are prepared, the safety device comprising first detecting means (1, 3) each disposed between each the operating area (X, Z) and the preparing area to detect entrance of an operator into each the operating area (X, Z), means for discriminating (column 8 lines 1-15) the operating area (X, Z) in which the automatic machine

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(8) is operating, means for stopping (column 8 lines 44-47) the automatic machine (8) when entrance of an operator into the operating area (X, Z) is detected by the first detecting means corresponding to the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating, means for outputting an informing signal for informing of the operating area where an operator is located (column 3 lines 39-45), in accordance with an operator's operation, means for controlling the automatic machine (8), in response to the informing signal, so that the automatic machine (8) does not enter the operating area (X, Z) where an operator is located, second detecting means (12) each disposed between the installation area (Y) and each the operating area (X, Z) to detect at least one of entrance of an operator into the installation area (Y) and means for stopping (column 8 lines 44-47) the automatic machine (8) when the second detecting means corresponding to the operating area (X, Z) other than the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating detects at least one of entrance of an operator into the installation area (Y) and entrance of the automatic machine (8) into the operating area (X, Z) other than the operating area (X, Z) which is discriminated as the area where the automatic machine (8) is operating.

Regarding Claim 6, *Milbrath* discloses in Figure 7 indicating means for enabling an operator to recognize the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating. This is inherent in order for the operator to know which light curtain (detecting means) is "down" so the operator can enter the operating area to load an object.

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Regarding Claim 8, *Milbrath* discloses in Figure 7 that the automatic machine (8) is a robot.

Regarding Claim 9, *Milbrath* discloses in Figure 7 that the first detecting means (1, 3) are safety fences. (Webster dictionary of fence: a barrier intended to prevent escape or intrusion or to mark a boundary).

Regarding Claim 10, *Milbrath* discloses in Figure 7 that the second detecting means (12) are photoelectric sensors (light curtains).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Milbrath.

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Regarding Claim 7, *Milbrath* teaches in Figure 7 and in column 8 lines 44-47 indicating means, but does not teach that it is a lamp or a buzzer. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to use a suitable visual or audio signal to efficiently alert the operator of the intrusion into a particular zone.

Response to Arguments

Applicant's arguments regarding Claims 1-3 and 6-10, filed 8/24/05, have been fully considered but they are not persuasive.

In particular, the Applicant argues on page 10 that the cited prior art of record (*Milbrath*) does not teach "means for outputting an informing signal for informing of the operating area where an operator is located and means for controlling the automatic machine, in response to the informing signal, so that the automatic machine does not enter the operating area where an operator is located." Applicant further gives an example that if an operator was entirely present in a particular zone before a light curtain was activated, there would be no detection of the operator's presence because the light curtain would not be broken. The claim language, however, as it is written is not limited to that interpretation. *Milbrath* does teach that if an operator breaks through a light barrier, an alarm sounds; this is a signal indicating that the operator is "located" in that particular work zone and the machine will not enter that zone.

Allowable Subject Matter

Claim 5 is allowed.

The following is an examiner's statement of reasons for allowance: the cited prior art of record does not teach or fairly suggest a safety device for an automatic machine system comprising means for outputting an informing signal for informing of the operating area where

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an operator is staying, in accordance with the operator's operation, and means for stopping the automatic machine when entrance of the automatic machine into the operating area where an operator is staying is detected by the second detecting means corresponding to the operating area, upon receiving the informing signal indicating that the operator is staying.

Although the cited prior art of record teaches means for indicating where an operator may be located (i.e. a barrier alarm indicates the operator is located in that work area), there is no teaching of providing a signal that indicates where the operator is stationed (i.e. staying in the location for a period of time.) There is a time and function distinction between "location", which may be temporary, and "staying", which is more permanent.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it teaches a method and device for determining if or where a person is located within an area for safety purposes.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davienne Monbleau whose telephone number is 571-272-1945. The examiner can normally be reached on Mon-Fri 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Davienne Monbleau

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